Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for making a carbon nanotube-based field emission device comprising steps of:

providing a substrate having a flat surface;

depositing a catalyst layer on a selected area on the flat surface of the substrate;

forming a carbon nanotube array extending from the selected area, the carbon nanotube array having a flat bottom surface corresponding to the flat surface of the substrate;

forming a single cathode electrode having a continuous flat surface on a top of the carbon nanotube array; and

removing the substrate so as to expose the flat bottom surface of the carbon nanotube array so that the flat bottom surface of the carbon nanotube array is thereby configured for acting as an electron emitting surface of the carbon nanotube-based field emission device.

Claim 2 (previously presented): The method as described in claim 1, wherein a variation in flatness of the flat surface of the substrate is less than 1 micron.

Claim 3 (original): The method as described in claim 1, wherein the

substrate is made of heatproof glass, silicon, or silicon oxide.

Claim 4 (original): The method as described in claim 1, wherein a thickness of the substrate is in the range from 1 micron to 1000 microns.

Claim 5 (original): The method as described in claim 4, wherein the thickness of the substrate is in the range from 10 microns to 200 microns.

Claims 6 (original): The method as described in claim 1, wherein a thickness of the catalyst layer is in the range from 1 nanometer to 10 nanometers.

Claim 7 (previously presented): The method as described in claim 1, wherein the substrate is removed by an etching process.

Claim 8 (previously presented): A method for making a carbon nanotube-based field emission device comprising steps of:

providing a substrate having a surface which has a variation in flatness of less than 1 micron;

forming a carbon nanotube array extending from a selected area of the surface of the substrate, the carbon nanotube array having a flat bottom surface corresponding to the flat surface of the substrate;

forming a cathode electrode on a top of the carbon nanotube array; and

removing the substrate so as to expose the flat bottom surface of the carbon nanotube array so that the flat bottom surface of the carbon nanotube array is thereby configured for acting as an electron emitting surface of the

carbon nanotube-based field emission device.

Claim 9 (original): The method as described in claim 8, wherein the carbon nanotube array is formed by a chemical vapor deposition process.

Claim 10 (previously presented): The method as described in claim 8, wherein the flat bottom surface of the carbon nanotube array is treated by laser irradiation to clean the flat bottom surface thereof.

Claim 11 (original): The method as described in claim 8, wherein the substrate is made of heatproof glass, silicon, or silicon oxide.

Claim 12 (previously presented): The method as described in claim 8, wherein further forming at least one gate electrode adjacent to the carbon nanotube array.

Claim 13 (currently amended): A method for making a carbon nanotube-based field emission device comprising steps of:

providing an insulative substrate having a flat surface;

forming a carbon nanotube array extending from a selected area of the flat surface, the carbon nanotube array having a flat bottom surface corresponding to the flat surface of the insulative substrate;

depositing a single layer of metallic material having a flat continuous surface on a top of the carbon nanotube array; and

removing the insulative substrate to expose the flat bottom surface of the carbon nanotube array so that the flat bottom surface of the carbon

nanotube array is thereby configured for acting as an electron emitting surface of the carbon nanotube-based field emission device.

Claim 14 (previously presented): The method as described in claim 13, wherein the flat surface of the insulative substrate has a variation in flatness less than 1 micron.

Claim 15 (original): The method as described in claim 13, wherein the insulative substrate is made of heatproof glass, silicon, or silicon oxide.

Claim 16 (previously presented): The method as described in claim 13, wherein said flat surface is polished with great flatness.

Claim 17 (new): The method as described in claim 1, wherein said flat continuous surface of the cathode is opposite to the substrate.